

Figure 1 (SEQ ID NO:724)

## 85P1B3 SSH sequence and GenBank homology to OIP5

GATCAGAGGACACATGGGACTCTGCATCTTAATTCTAAATTACAGTCAAAGACATTTCAAG  
 AGATAAGTATTATGAATTCAATAAGAATCTAAAGTAAGTCTTAAGGCAAATAGCTATAAAA  
 GAGAAGAACCTTAGTCTCATCTTCTAAAAACAGCTTCACAAATAATTGGAAAATCAGCC  
 TAAAGGTAAATAGAAACTGCATTTCCCCTCCATTCTGAAGCCAATCTTTCAAGAAATGAC  
 TAAGCAGCACCTGTTGAGACAGCAATAAGCCTGAACCTGACACTCAAGCTTGGTACA  
 GGATC

gb|AF025441.1|AF025441 Homo sapiens Opa-interacting protein... 632 e-179  
 gb|AF158642.1|AF158642 Homo sapiens metalloproteinase-disin... 42 0.12  
 gb|AC005075.2|AC005075 Homo sapiens clone RG219E16, complet... 42 0.12  
 emb|AL096773.6|HS1000E10 Human DNA sequence from clone 1000... 40 0.48

>gb|AF025441.1|AF025441 Homo sapiens Opa-interacting protein OIP5 mRNA, partial cds  
 Length = 1197

Score = 632 bits (319), Expect = e-179  
 Identities = 319/319 (100%)  
 Strand = Plus / Minus

Query: 1 gatcagaggacacatgggactctgcatcttaattctaaattacagtcaaagacattt 60  
 ||||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
 Sbjct: 1013 gatcagaggacacatgggactctgcatcttaattctaaattacagtcaaagacattt 954

Query: 61 cagagataagtattatgaattcaataagaatctaaagtaagttcttaaggcaaatagcta 120  
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
 Sbjct: 953 cagagataagtattatgaattcaataagaatctaaagtaagttcttaaggcaaatagcta 894

Query: 121 taaaagagaagaatccttagtctctcatcttctaaaaacagcttcacaaataattggaa 180  
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
 Sbjct: 893 taaaagagaagaatccttagtctctcatcttctaaaaacagcttcacaaataattggaa 834

Query: 181 aatcagcctaaaggtaaatagaaactgcattccctccattttgaagccaatctttt 240  
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
 Sbjct: 833 aatcagcctaaaggtaaatagaaactgcattccctccattttgaagccaatctttt 774

Query: 241 caagaaatgactaaggcacctgttgtgaagacagcaataaagcctgaacctgacact 300  
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
 Sbjct: 773 caagaaatgactaaggcacctgttgtgaagacagcaataaagcctgaacctgacact 714

Query: 301 caagctttggcacaggatc 319 (SEQ ID NO:725)  
 ||||| ||||| |||||  
 Sbjct: 713 caagctttggcacaggatc 695 (SEQ ID NO:726)

Sheet 2 of 22

Figure 2

cDNA Sequence and ORF of 85P1B3/OIP5 clone A  
(SEQ ID NO:727)

↓	9	18	27	36	45	54
5'	GGC TGC GGG AAG ATG GCG GCT CAG CGG CTG CGG CAT CGC TCA CGT TGT GCA ACG					
	(SEQ ID NO:728)→ M A A Q P L R H R S R C A T					
	63	72	81	90	99	108
	CCG CCC CGG GGG GAC TTT TGT GGT GGC ACT GAG AGG GCG ATT GAC CAA GCT TCT					
	P P R G D	F C G G T E R A I D Q A S				
	117	126	135	144	153	162
	TTT ACG ACC TCC ATG GAG TGG GAT ACG CAG GTG GTG AAG GGG TCC TCG CCG CTC					
	F T T S M E W D T Q V V K G S S S P L					
	171	180	189	198	207	216
	GGC CCC GCA GGG CTG GGG GCT GAG GAG CCA GCC GCC GGC CCG CAG CTG CCG TCT					
	G P A G L G A E E P A A G P Q L P S					
	225	234	243	252	261	270
	TGG CTG CAG CCT GAG AGG TGC GCT GTG TTC CAG TGC GCA CAG TGT CAC GCA GTG					
	W L Q P E R C A V F Q C A Q C H A V					
	279	288	297	306	315	324
	CTC GCC GAC TCG GTG CAC CTC GCC TGG GAC CTG TCG CGG TCC CTC GGG GCC GTG					
	L A D S V H L A W D L S R S L G A V					
	333	342	351	360	369	378
	GTC TTC TCC AGA GTT ACA AAT AAC GTC GTT TTG GAA GCG CCC TTC CTA GTT GGC					
	V F S R V T N N V V L E A P F L V G					
	387	396	405	414	423	432
	ATT GAA GGT TCA CTC AAA GGC AGT ACT TAC AAC CTT TTA TTC TGT GGT TCT TGT					
	I E G S L K G S T Y N L L F C G S C					
	441	450	459	468	477	486
	GGG ATT CCC GTT GGT TTC CAT CTG TAT TCT ACC CAT GCT GCC CTG GCT GCC TTG					
	G I P V G F H L Y S T H A A L A A L					
	495	504	513	522	531	540
	AGA GGT CAC TTC TGC CTT TCC AGT GAC AAA ATG GTG TGC TAT CTC TTA AAA ACA					
	R G H F C L S S D K M V C Y L L K T					
	549	558	567	576	585	594
	AAA GCC ATA GTA AAT GCA TCA GAG ATG GAT ATT CAA AAT GTT CCT CTA TCA GAA					
	K A I V N A S E M D I Q N V P L S E					
	603	612	621	630	639	648
	AAG ATT GCA GAG CTG AAA GAG AAG ATA GTG CTA ACG CAC AAT CGC TTA AAA TCA					
	K I A E L K E K I V L T H N R L K S					

Sheet 3 of 22

Figure 3

85P1B3/OIP5 protein sequence. (SEQ ID NO:729)

1 MAAQPLRHRS RCATPPRGDF CGGTERAIDQ ASFTTSMEWWD TQVVKGSSPL GPAGLGAE<sup>E</sup>P  
61 AAGPQLPSWL QPERCAVFQC AQCHAVLADS VHLAWDLSRS LGAVVFSRVT NNVVLEAPFL  
121 VGIEGSLKGS TYNLLFCGSC GIPVGFHILYS THAALAALRG HFCLSSDKMV CYLLKTKAIV  
181 NASEMDIQNV PLSEKIAELK EKIVLTHNRL KSLMKILSEV TPDQSKPEN\*

**Figure 4****Alignment of 85P1B3 with OIP5.**

>gi|2815610|gb|AAC39561.1| (AF025441) Opa-interacting protein OIP5 [Homo sapiens]  
Length = 231

Score = 462 bits (1189), Expect = e-130  
Identities = 229/229 (100%), Positives = 229/229 (100%)

85P1B3 : 1	MAAQPLRHSRCATPPRGDFCGGTERAIDQASFTTSMEWDTQVVKGSSPLGPAGLCAEEP	60
OIP5 : 3	MAAQPLRHSRCATPPRGDFCGGTERAIDQASFTTSMEWDTQVVKGSSPLGPAGLCAEEP	62
85P1B3 : 61	AAGPQLPSWLQPERCAVFQCAQCHAVLADSVHLAWDLRSRLGAVVFSRVTVNNVLEAPFL	120
OIP5 : 63	AAGPQLPSWLQPERCAVFQCAQCHAVLADSVHLAWDLRSRLGAVVFSRVTVNNVLEAPFL	122
85P1B3 : 121	VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV	180
OIP5 : 123	VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV	182
85P1B3 : 181	NASEMDIQNVPLSEKIAELKEKIVLTHNRLKSLMKILSEVTDPDSKPN	229 (SEQ ID NO:730)
OIP5 : 183	NASEMDIQNVPLSEKIAELKEKIVLTHNRLKSLMKILSEVTDPDSKPN	231 (SEQ ID NO:731)

Figure 5: 85P1B3 Hydrophilicity profile  
(Hopp T.P., Woods K.R., 1981. Proc. Natl. Acad. Sci. U.S.A. 78:3824-3828)

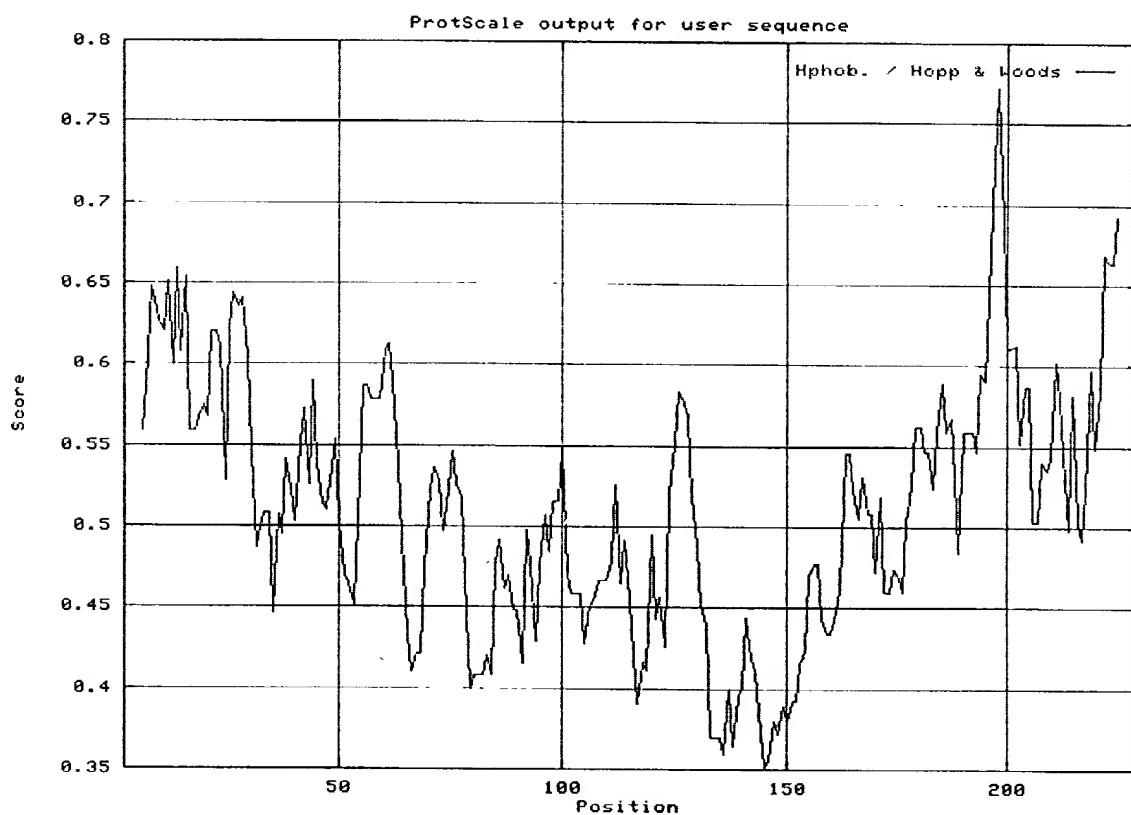


Figure 6: 85P1B3 Hydropathicity Profile  
(Kyte J., Doolittle R.F., 1982. J. Mol. Biol. 157:105-132)

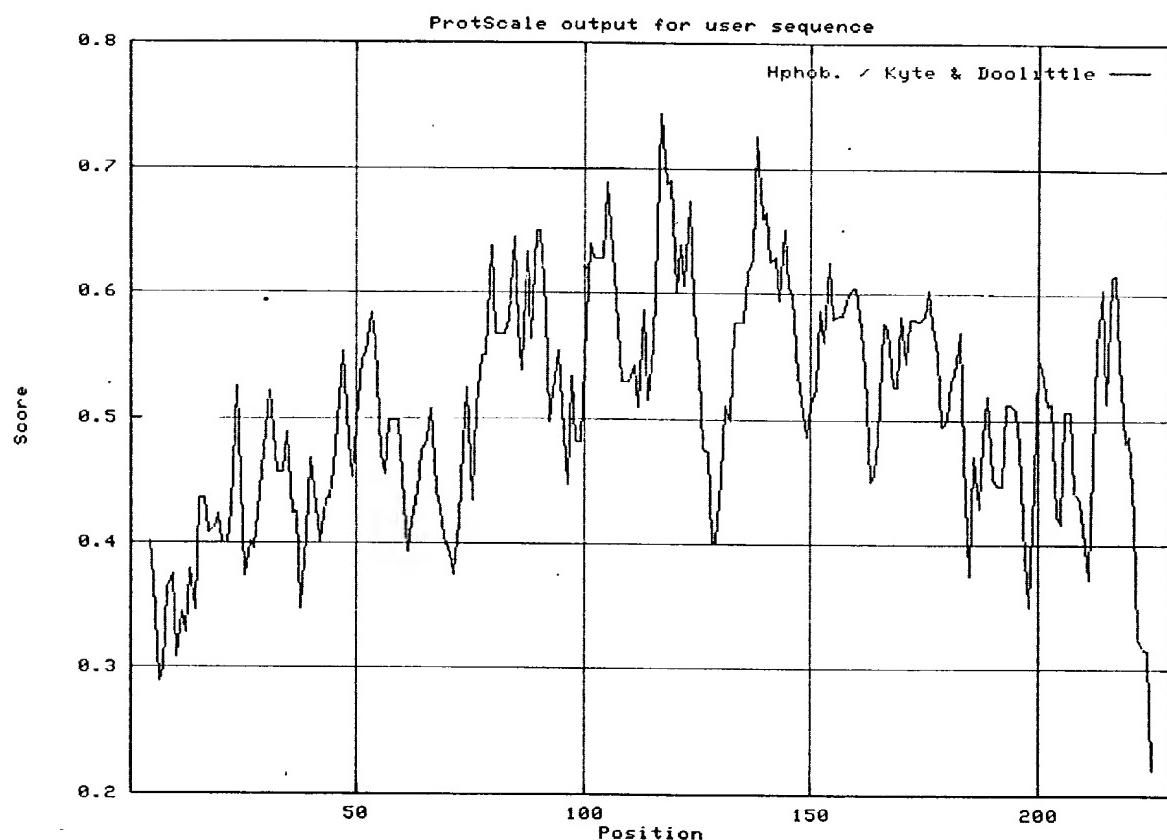


Figure 7: 85P1B3 % Accessible Residues Profile  
(Janin J., 1979. Nature 277:491-492)

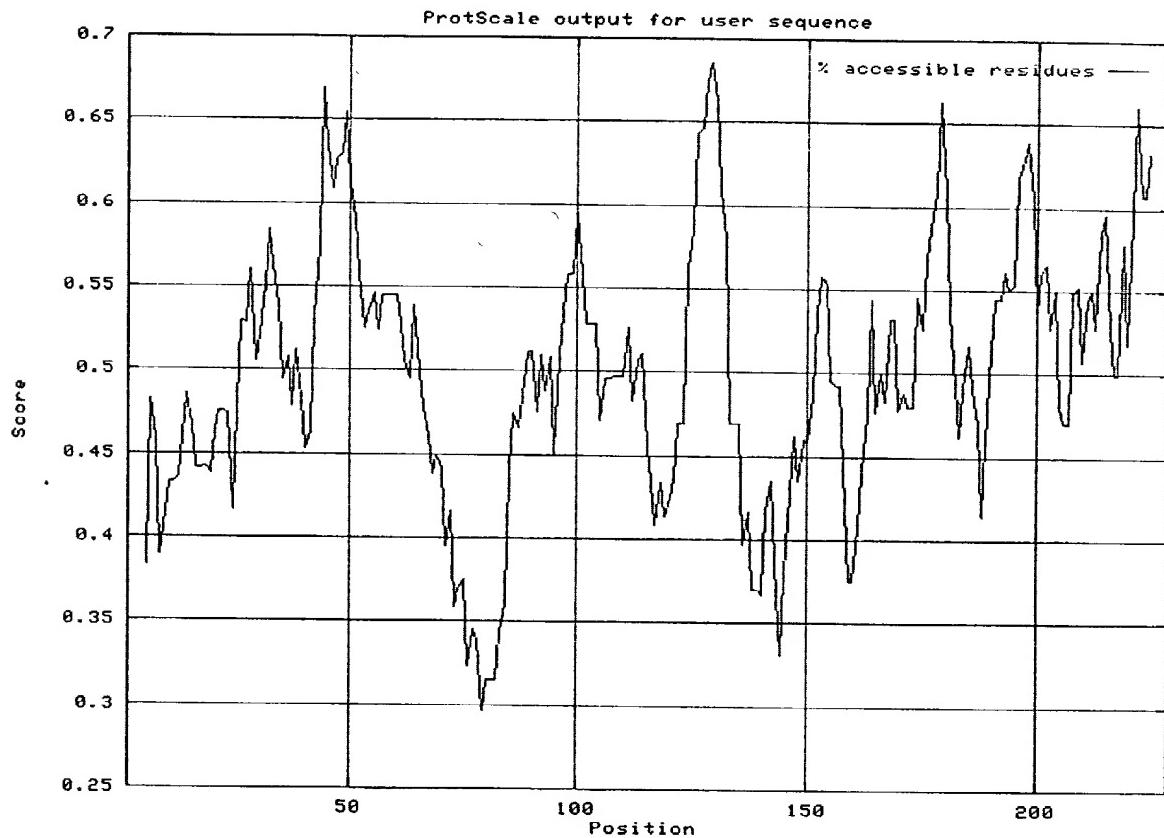


Figure 8: 85P1B3 Average Flexibility Profile  
(Bhaskaran R., Ponnuswamy P.K., 1988.  
Int. J. Pept. Protein Res. 32:242-255)

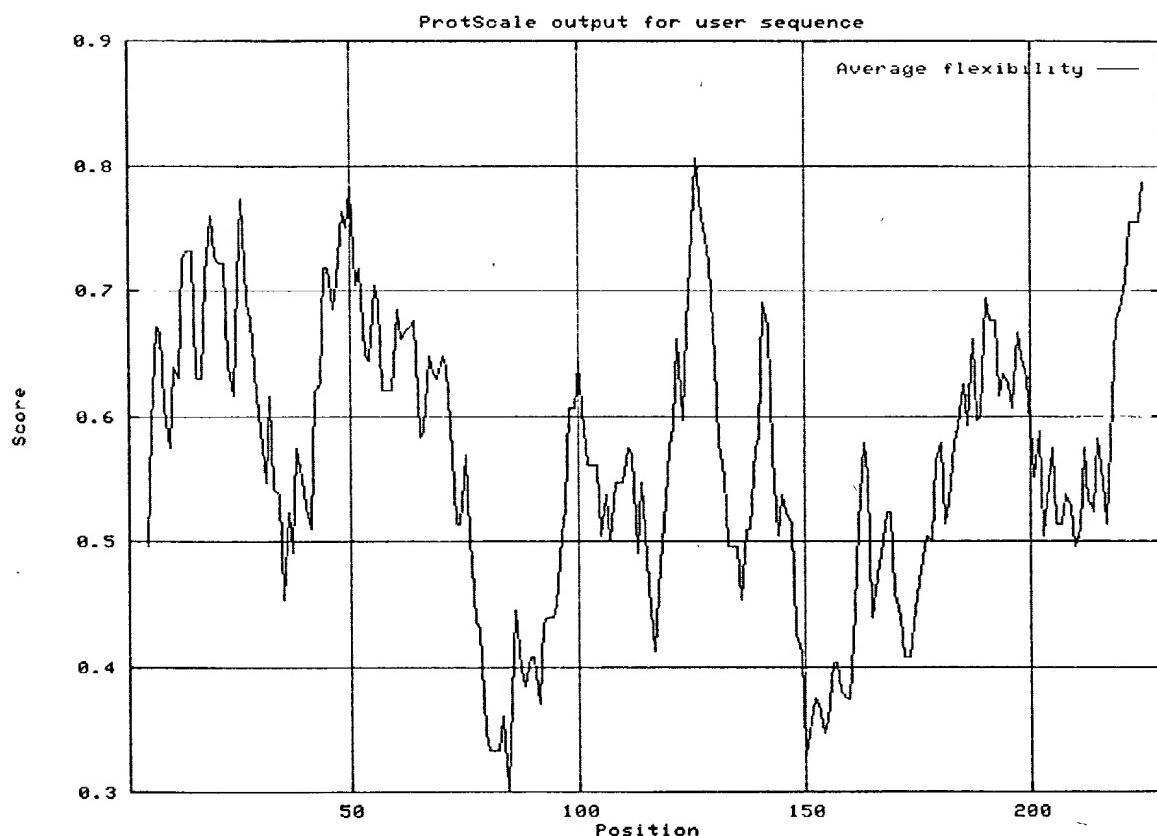


Figure 9: 85P1B3 Beta-turn Profile  
(Deleage, G., Roux B. 1987. Protein Engineering 1:289-294)

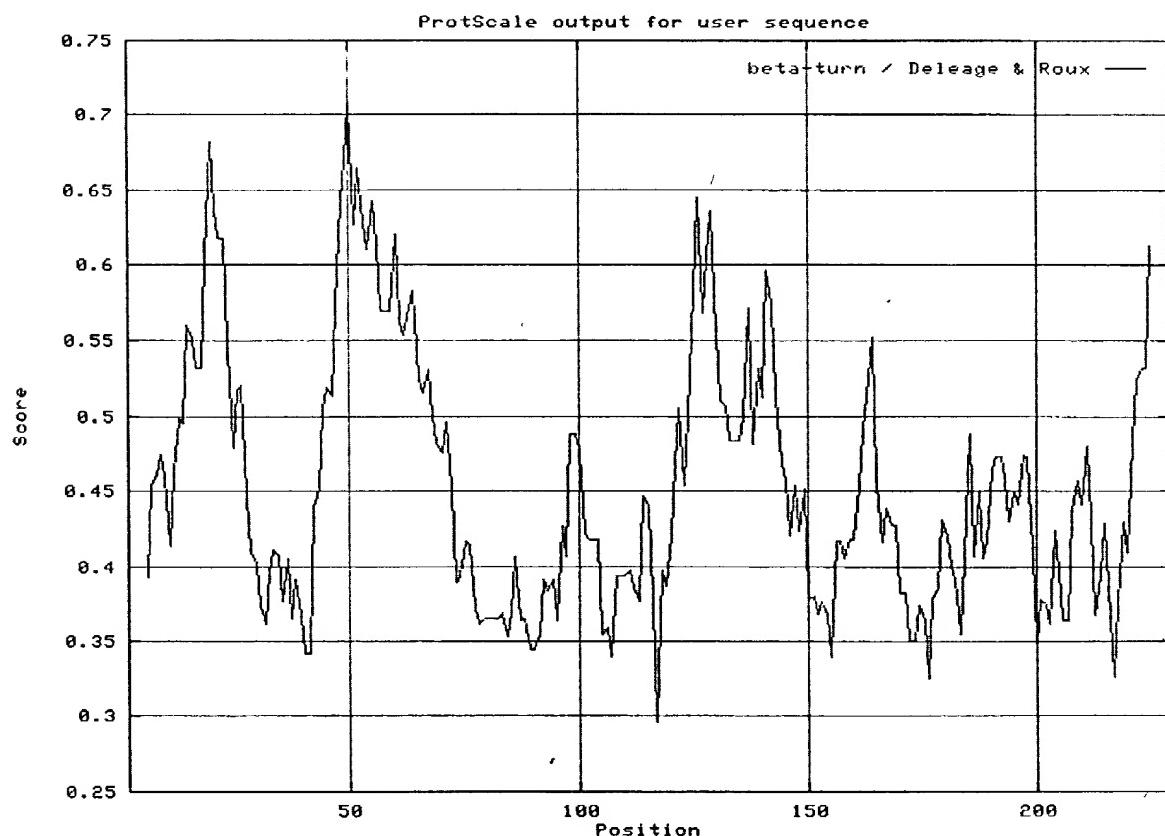
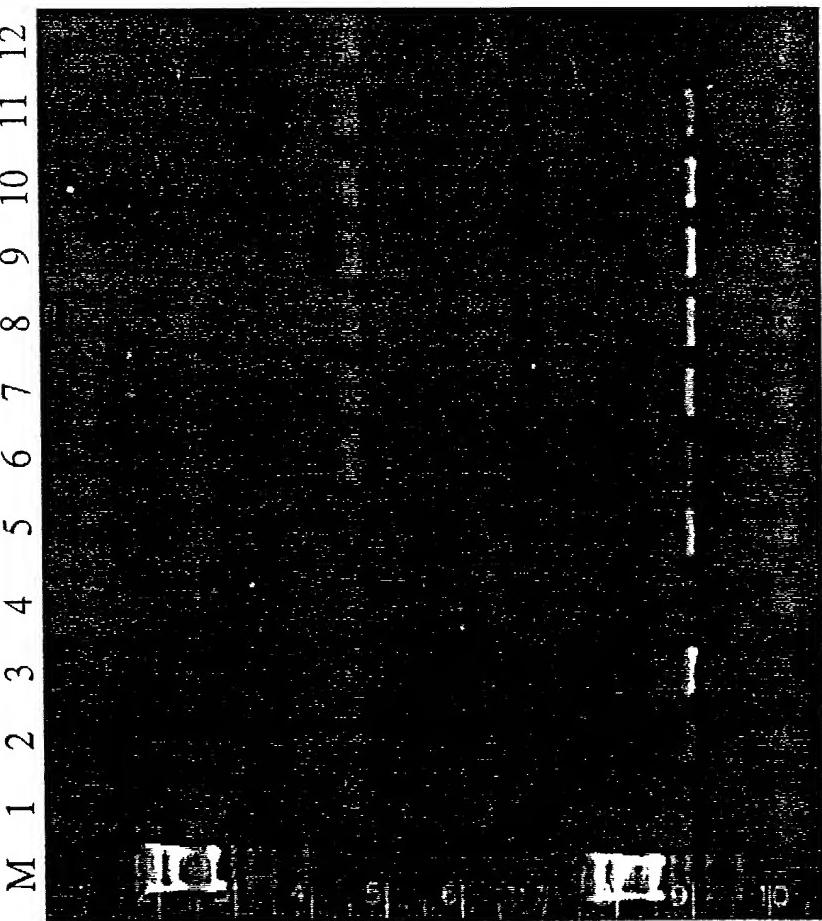
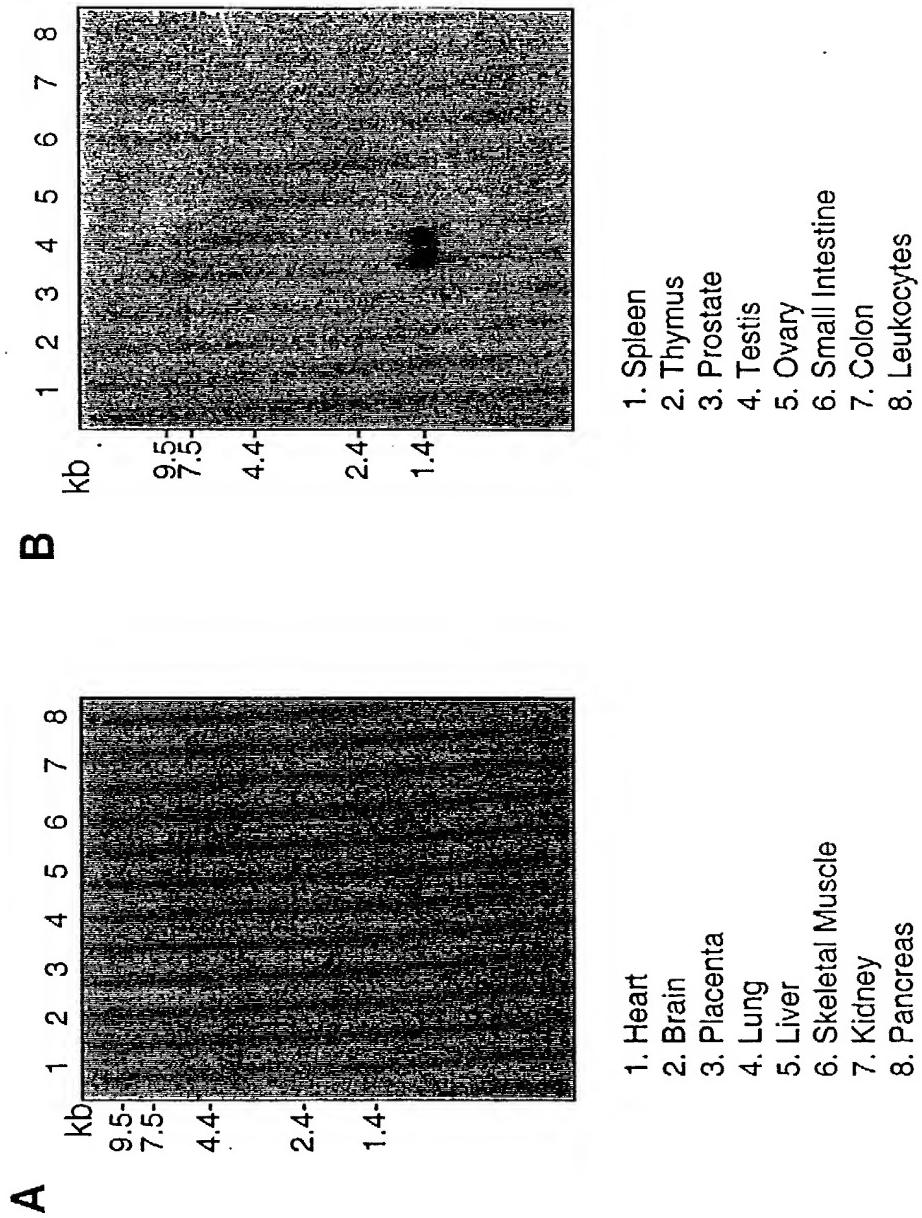


Figure 10 RT-PCR analysis of 85P1B3 expression.

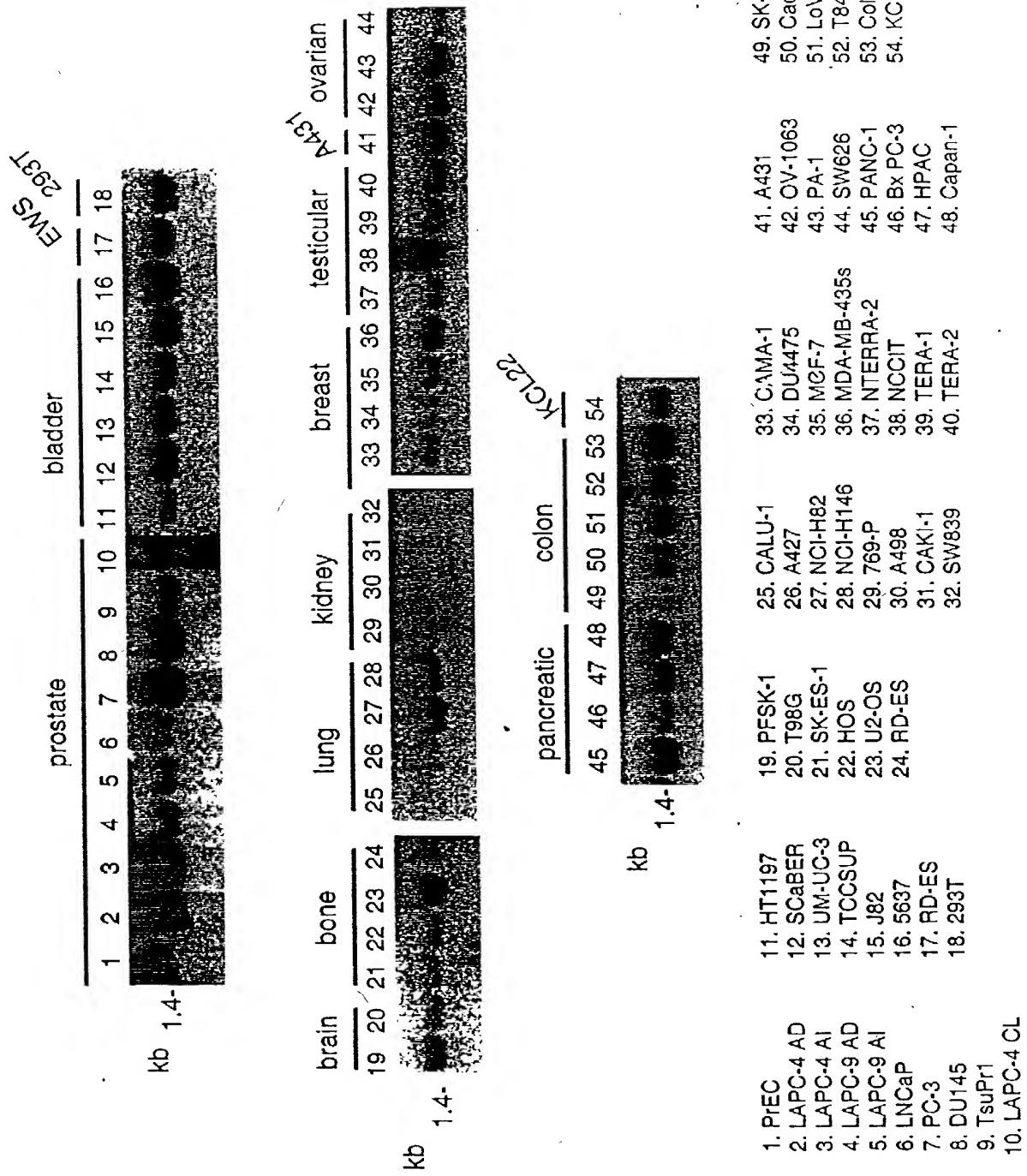
- 1) Vital Pool 1
- 2) Vital Pool 2
- 3) Xenograft Pool
- 4) Prostate Cancer Pool
  - Bladder Cancer Pool
  - Kidney Cancer Pool
  - Colon Cancer Pool
  - Lung Cancer Pool
  - Ovary Cancer Pool
  - Breast Cancer Pool
  - Metastasis Pool
  - H<sub>2</sub>O



**Figure 11** Expression of 85P1B3 in Normal Human Tissues



**Figure 12** Expression of 85P1B3 in Human Cancer Cell Lines



**Figure 13 Expression of 85P1B3 in Patient Cancer Specimens and Cancer Cell Lines**

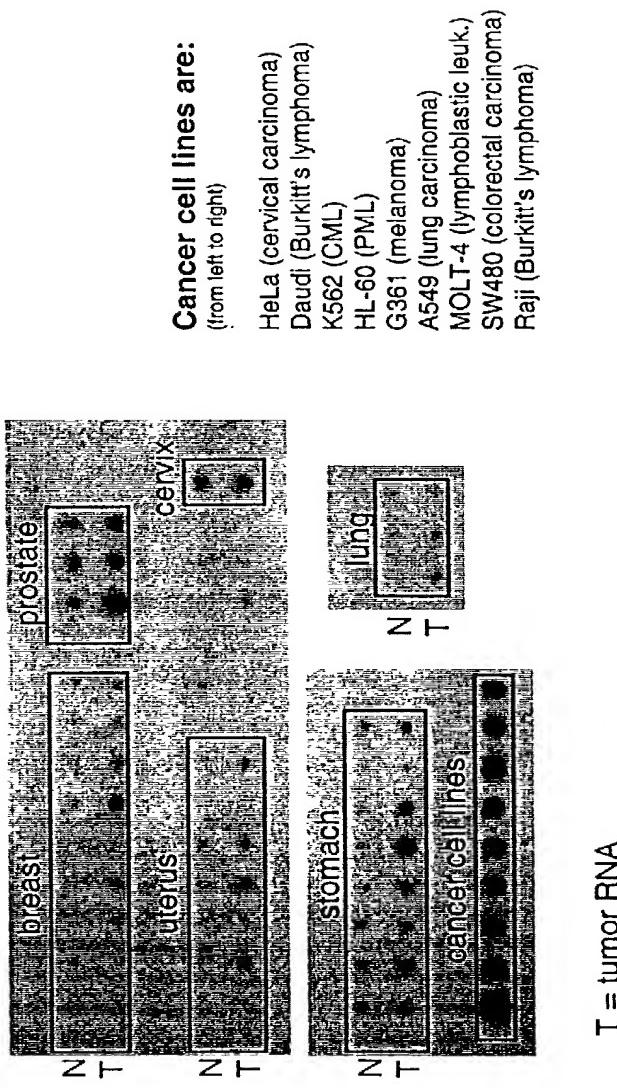
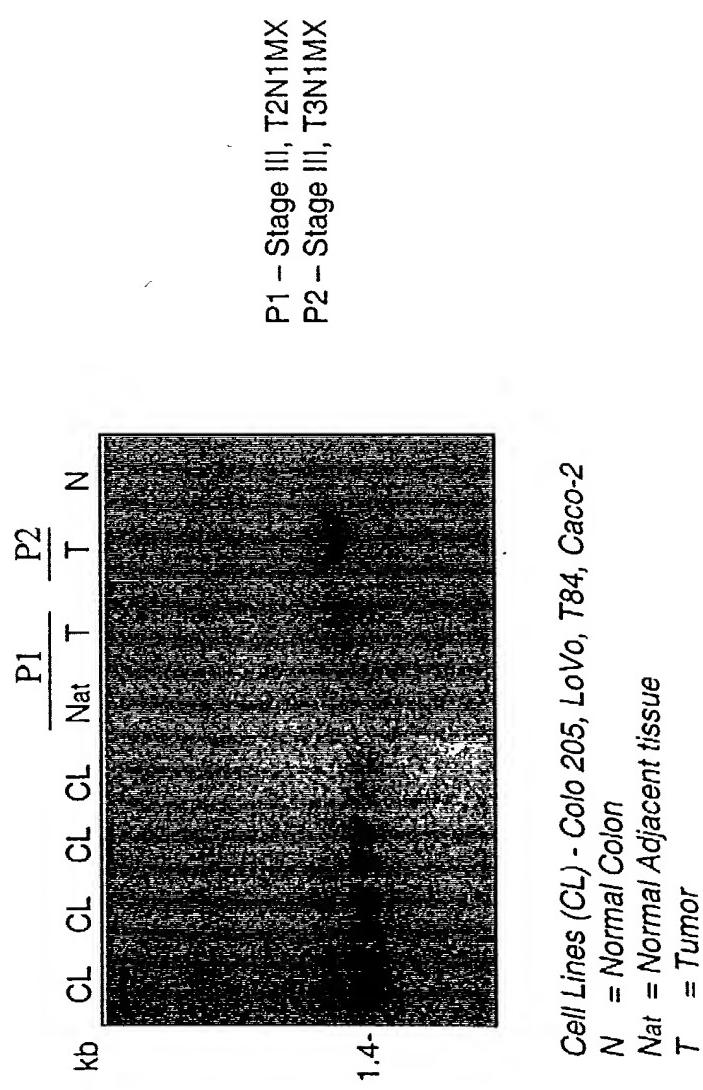
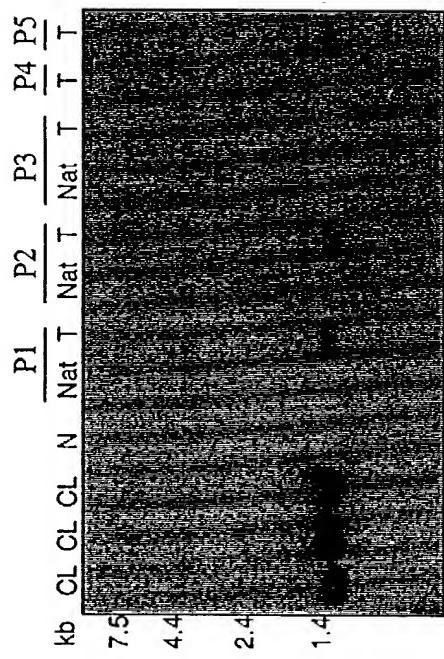


Figure 14 Expression of 85P1B3 in Colon Cancer Patient Specimens



**Figure 15 Expression of 85P1B3 in Bladder Cancer Patient Specimens**



P1 - Transitional, grade 2

P2 - Transitional, grade 3/2

P3 - Transitional

P4 - Polypoid cystitis

P5 - Papillary, grade 3

CL = cell lines listed in order: UM-UC-3, J82, SCABER

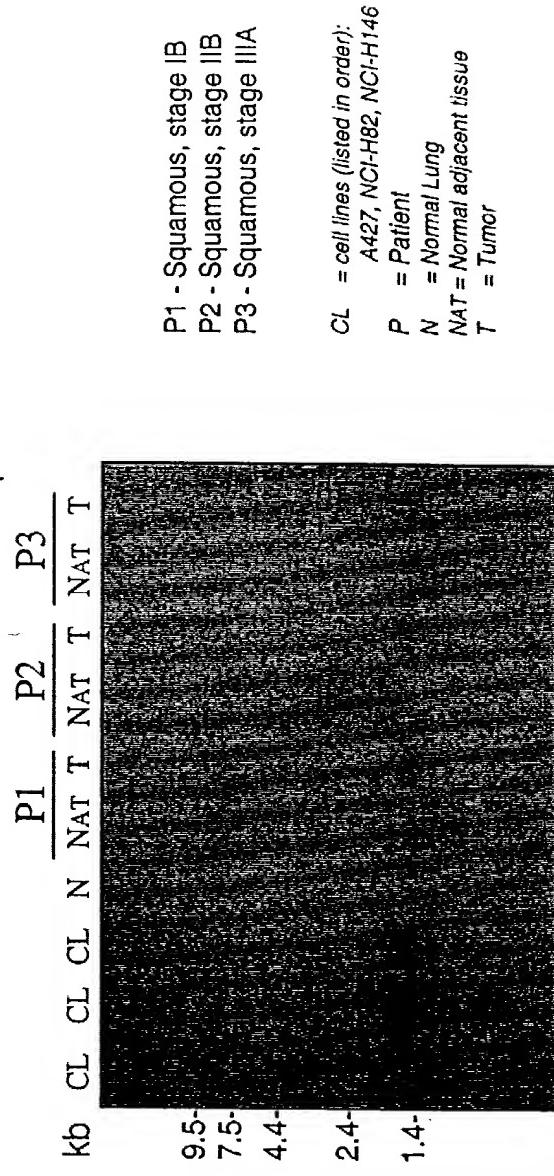
P = Patient

N = Normal Bladder

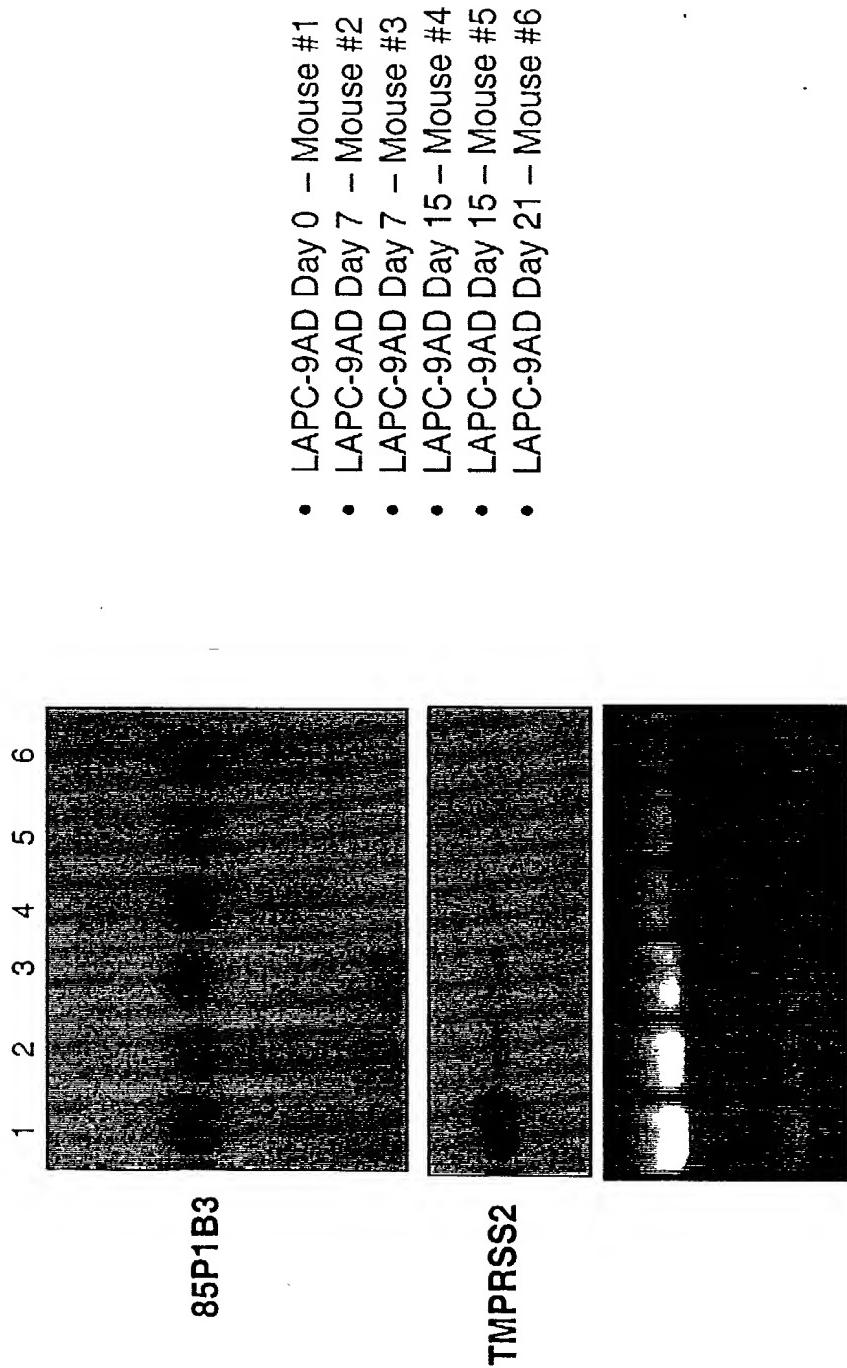
Nat = Normal adjacent tumor

T = Tumor

Figure 16 Expression of 85P1B3 in Lung Cancer Patient Specimens



**Figure 17 Expression of 85P1B3 in Prostate Cancer Xenografts Following Castration**



**Figure 18 Expression of 85P1B3 in PC3 Cells Following Retroviral-Mediated Gene Delivery**

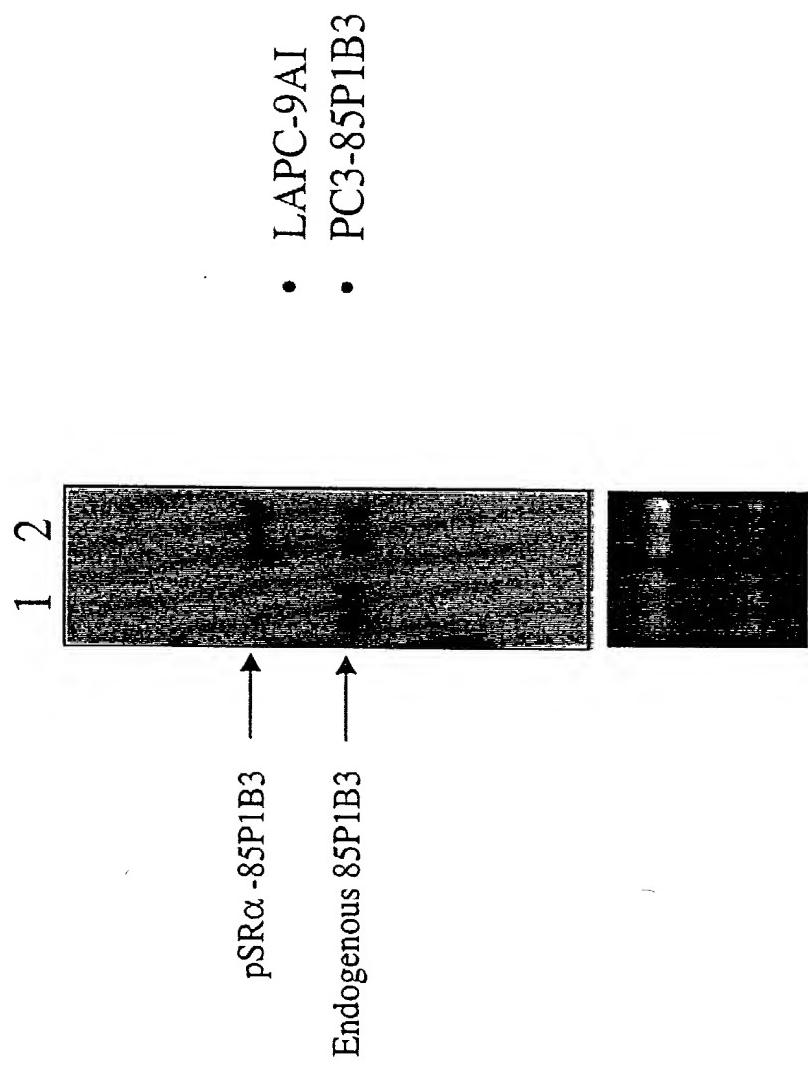


Figure 19.

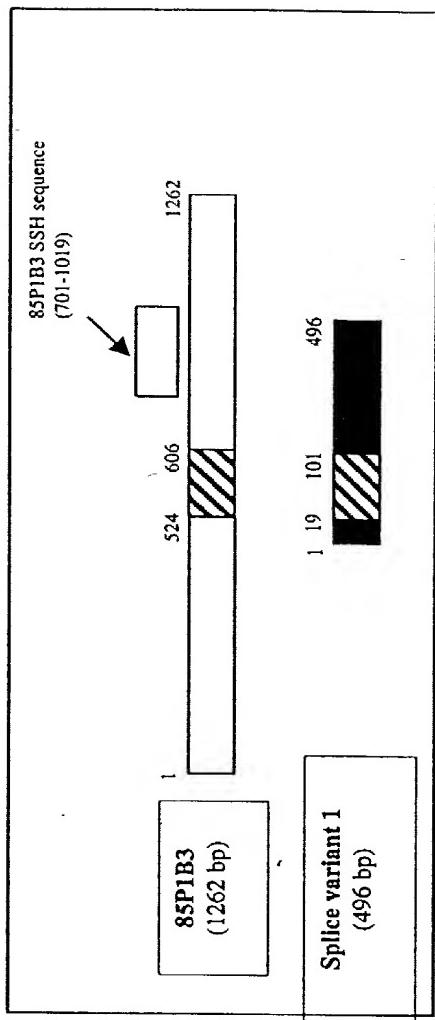
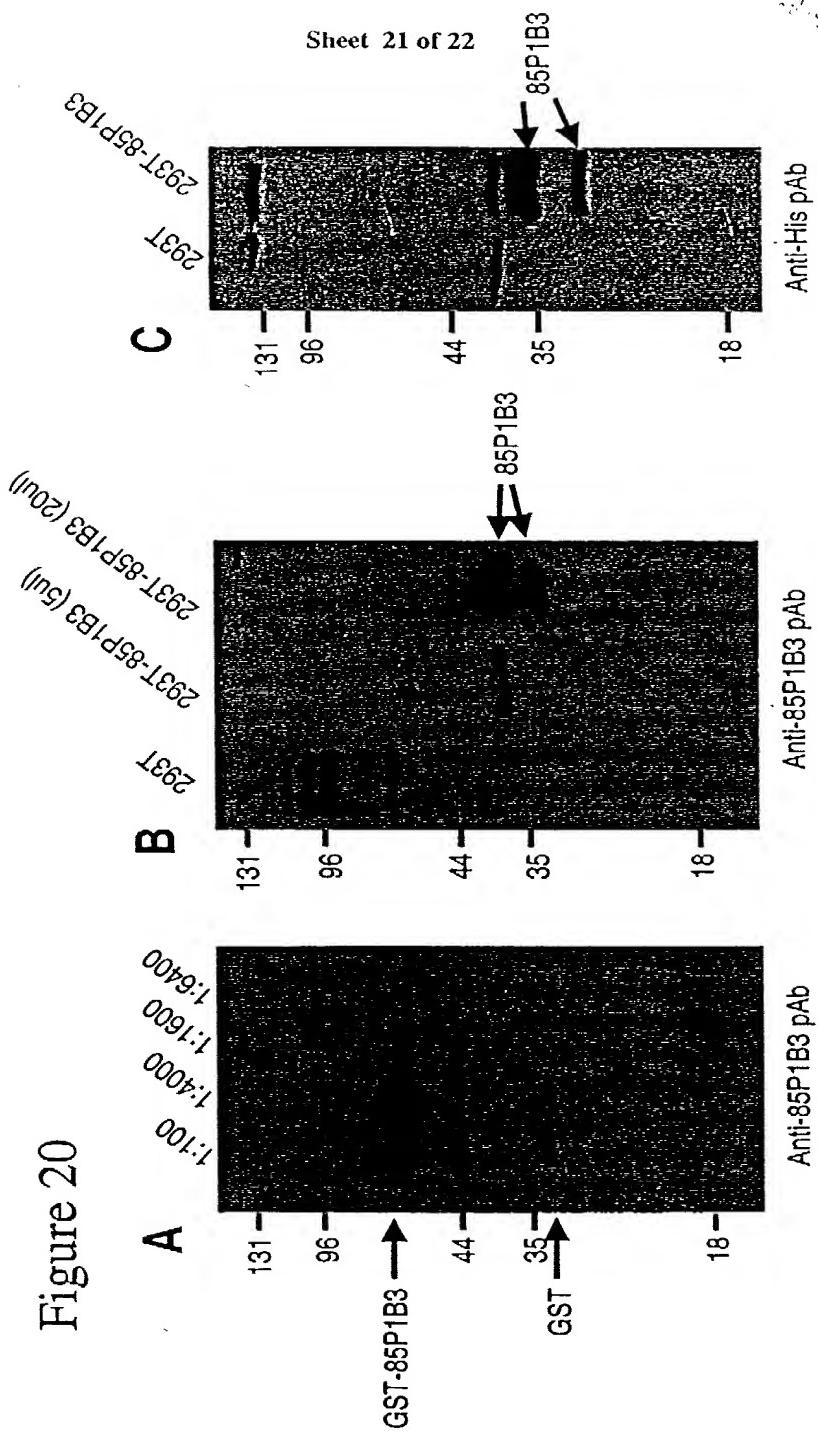
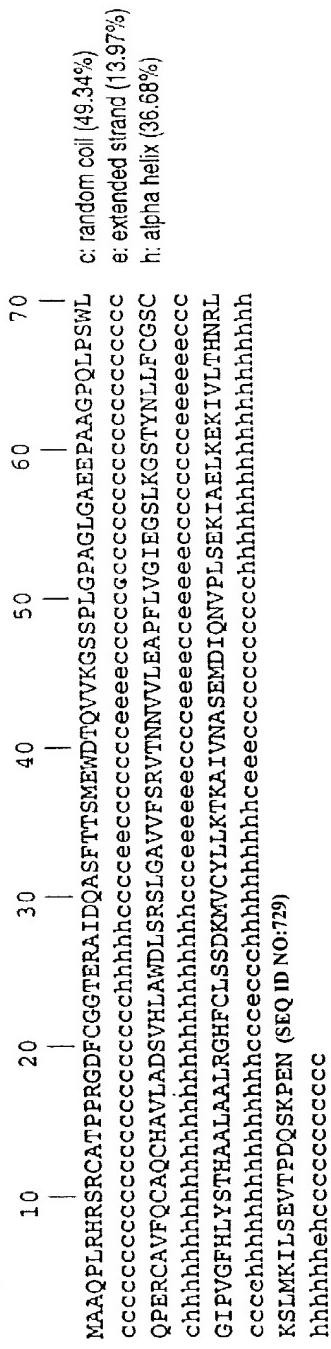
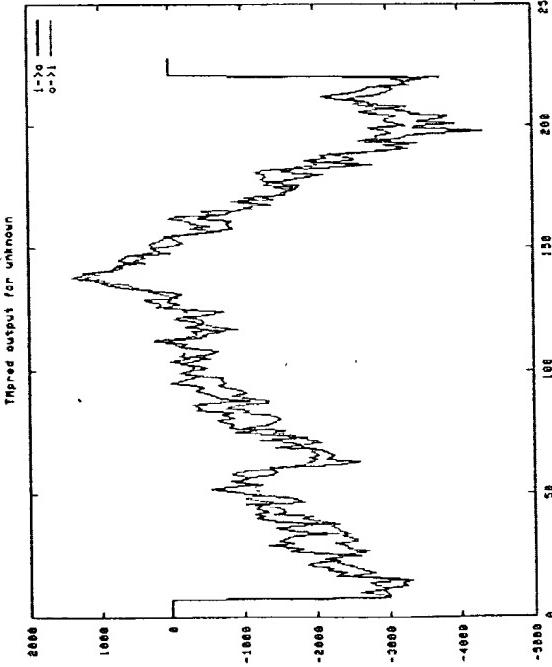
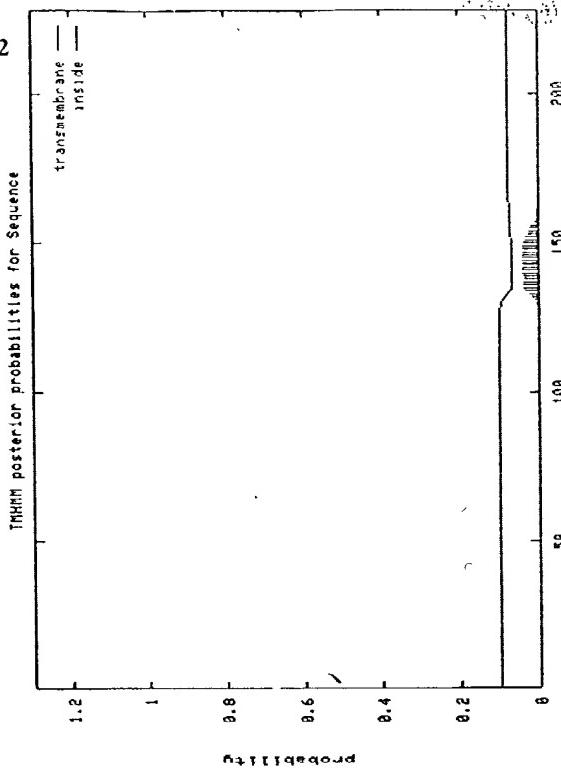


Figure 20



**Fig. 21A****Fig. 21B**

1 transmembrane from amino acids 129-149

**Fig. 21C**

No transmembrane domains, soluble protein